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ABSTRACT

This annual report, a process evaluation, describes the development of an elective course to teach medical school residents and practicing physicians how to detect and protect children from child abuse. A section on the project background considers why physicians underreport suspicion of child abuse and how to address the problem through education. Goals and objectives of the project are explained, with the primary goal being the protection of children by increasing physician reporting of child abuse and neglect. Project operations and accomplishments are discussed in the areas of curriculum development, the establishment of a child abuse and neglect library, the course design, and recruiting students. In addition to educating medical residents, the goal of community and in-service education is discussed. The evaluation plan is briefly described and problems and issues encountered in the project are discussed. Problems of different fiscal systems, unanticipated demands on the director's time, and low enrollment (only one student enrolled during the first year) are addressed. Relevant materials are appended. (NB)

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**Innovations in
Child Protective Services**

**P.L. 93-247
Grant Award #06CA287-02**

**Annual Report
Medical School
Child Abuse and Neglect
Elective for Residents**

September 30, 1987

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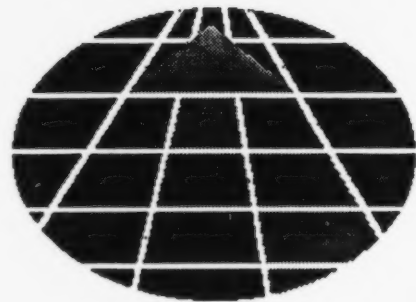
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Texas Department of Human Services

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The views expressed herein are those of the authors and do not necessarily reflect the official position of the Office of Human Development Services of the U.S. Department of Health and Human Services.

Medical School
Child Abuse and Neglect
Elective For Residents

Annual Report

September 1, 1986, through August 31, 1987

September 30, 1987

Written by
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Submitted by
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Acknowledgments

The Texas Department of Human Services (DHS) wishes to acknowledge the contributions of a number of people who participated in the development and implementation of the Medical School Child Abuse and Neglect Elective for Residents Project.

Rafael R. Garcia, M.D., assistant professor in the Department of Pediatrics at Texas Tech University Health Sciences Center in Lubbock, served as project director. Karla J. King, project coordinator, managed day-to-day operations.

From DHS Region 2, Fred Seale, regional director of Services to Families and Children, supported the project. Mark Dozier, program director, served as agency liaison to Dr. Garcia. Shirley Hayes, contract manager, prepared and monitored the contract.

In the Protective Services for Families and Children (PSFC) Branch in Austin, Donna Marler, CPS supervisor, served as liaison to the region.

From the Office of Strategic Management, Research, and Development, headed by Murray A. Newman, Ph.D., several staff members made contributions to the project. From the Special Projects Division, administered by Alicia Dimmick Es-sary, Barbara Richardson, project designer, wrote the original grant application. Lucretia Dennis-Small, project specialist, served as planning consultant to the project, wrote and submitted reports to the funding source, and monitored progress on project operations. Nicholas Constant, Phyllis Jamar, and Mary Garcia of the Technical Communication Section contributed to the good quality of the annual report.

General Introduction

In the past year, the Texas Department of Human Services (DHS) conducted 12 projects funded by P. L. 93-247 Basic State Grant Funds (Part I--9 projects) and Medical Neglect Grant Funds (Part II--3 projects). The projects were designed to test ideas for improving services to children in need of protection. Seven projects operated from the state office (Austin), and 5 projects operated from DHS's direct-service regions. However, the 7 state office projects involved regional staff and provided direct benefits statewide to all the direct-service regions. (Project titles and locations are shown in figure 1.)

OVERALL OBJECTIVES

Overall objectives established for the 9 projects funded by Basic State Grants (Part I) were--

- to provide equity and consistency of services to the children that DHS's Protective Services for Families and Children (PSFC) Program is responsible for protecting under state and federal law;
- to develop automated applications for use by PSFC staff as part of DHS's "streamlining" initiative;
- to implement strategies to reduce the incidence of child neglect and family violence; and
- to plan for future service delivery needs and future directions in program development and management.

The overall objectives for the 3 projects funded by the Medical Neglect Grant (Part II) were--

- A. Home Centered Prevention (Region 9)
- B. Inter-Agency Child Abuse Network (Region 9)
- C. Advocacy Services (Region 9)
- D. Case Investigation Decision Support System Workbook (State Office)
- E. In-Home Service Delivery (State Office)
- F. CPS Community Liaison and Education (State Office)
- G. Medical Neglect Community Liaison (State Office)

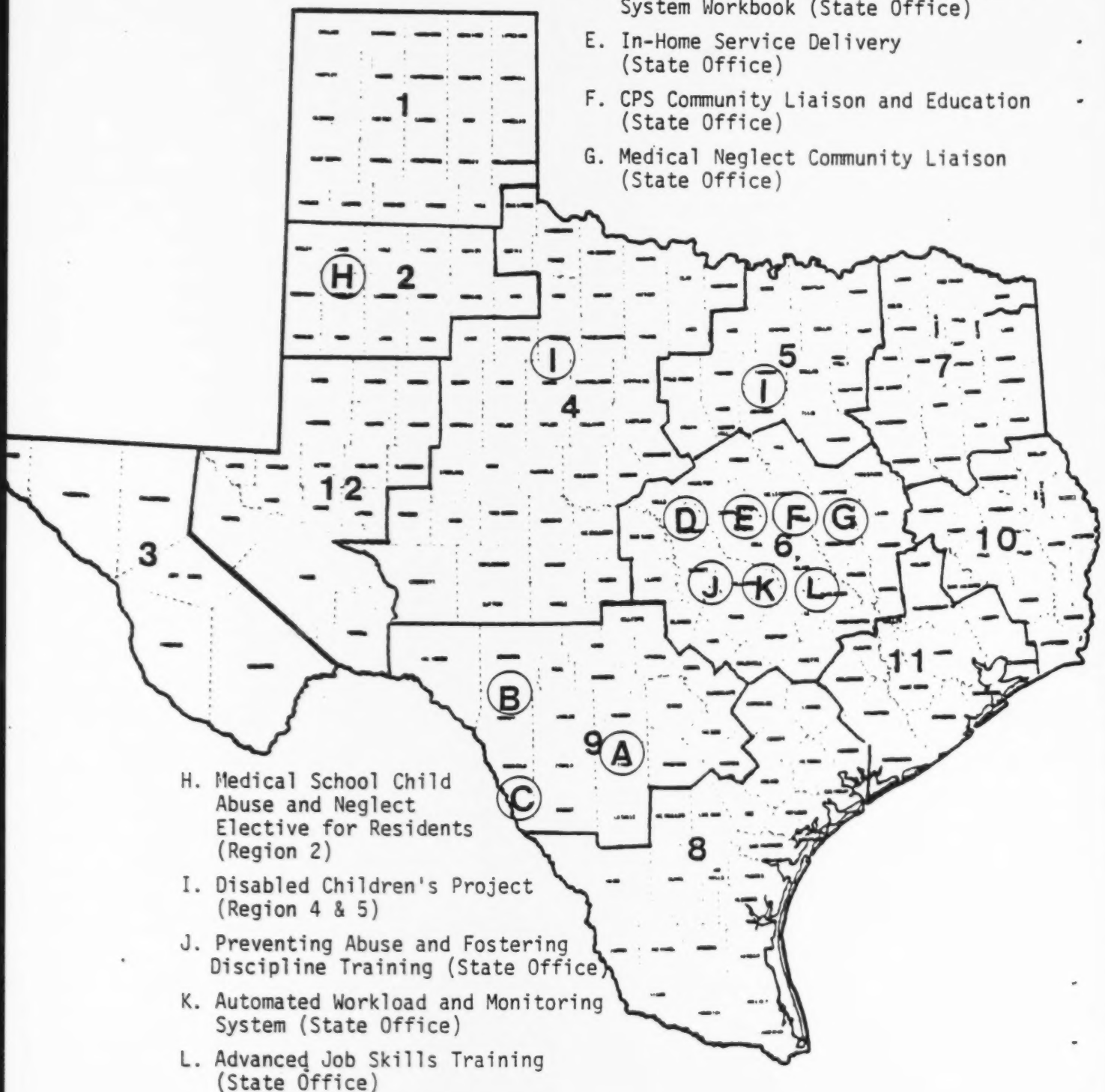


Figure 1. Location of P.L. 93-247 Projects within DHS Regions

- to improve procedures or programs for responding to reports of withholding medically indicated treatment from disabled infants with life-threatening conditions;
- to develop and implement information and education programs or training programs for professional and paraprofessional staff--including CPS and health care personnel--and for parents, with the purpose of improving services to disabled infants with life-threatening conditions;
- to develop and implement programs to help in obtaining and coordinating social and health services and financial assistance; and
- to establish within health care facilities committees for educating, recommending guidelines, and offering counsel and reviews.

PROJECTS REPORTED ON AND TYPE OF REPORT

This report is one of 12 separately printed documents on the following projects, 5 of which are ending this year (final reports) and 7 of which will continue for another year (annual reports).

Basic State Grants (Part I Funds)

- Home-Centered Prevention Project (annual report);
- Interagency Child Abuse Network Project (final report);
- Advocacy Services Project (final report);
- Case Investigation Decision Support System Workbook Project (final report);
- In-Home Service Delivery Development Project (annual report);

Executive Summary

The Medical School Child Abuse and Neglect Elective for Residents Project was conducted by the Texas Tech University Health Sciences Center (Texas Tech HSC) Department of Pediatrics in Lubbock, Texas. The two-year project--referred to here by its short title, Medical School Elective (MSE)--ended its first operational year in August 1987.

Project's Purpose

This annual report, a process evaluation, describes the development of an elective course to teach medical school residents and practicing physicians how to detect and protect children in danger. The course is intended to reduce the problems of (1) physicians underreporting child abuse and neglect due to lack of knowledge and skills in diagnosing and treating these conditions; and (2) physicians' lack of knowledge about mandatory reporting laws and procedures.

Development of the Course

During the first project year, the Texas Department of Human Services (DHS) and Texas Tech HSC entered into a contract to conduct the MSE Project. The project director, Rafael R. Garcia, M.D., assistant professor in the Department of Pediatrics, worked with the project coordinator to design and develop the curriculum for a one-month elective that was offered to pediatric and family medicine residents.

Curriculum Design. The project director designed the curriculum to allow residents to spend 50 percent of their time in traditional medical school clinical activities (patient and in-patient settings) and the other 50 percent getting experience

with community agencies such as women's protective services, child protective services, and police departments.

Academic Topics Covered. In the course , these academic topics were discussed--medical neglect ("Baby Doe" issues); physical abuse; neglect (failure to thrive); sexual abuse; legal requirements; medical testimony; and childhood injuries (unintentional). All topics were supplemented with teaching aids such as handouts or outlines, audiovisual aids, and discussion with the project director.

Response to the Course

Low Enrollment. Recruiting for the new elective went very slowly during the first project year; by March, only one resident had signed up.

Redirection of Project Focus. The project director resorted to one-on-one teaching to reach residents interested in studying child abuse and neglect issues. Through one-on-one teaching, he was able to reach five residents--three in pediatrics and two in family medicine.

Reasons for Low Response. Residents were skeptical about venturing into new "territory" and committing the necessary time and energy to the new elective.

Community and In-Service Education

The project director conducted two regional seminars (one on child sexual abuse and the other on medical neglect of infants) for practicing physicians, medical residents, and the general public. He also began contacting the seven other Texas medical schools to seek their support, and he proposed that each of them schedule and hold at least two regional seminars to educate their areas about the problems of child physical and sexual abuse and about medical and physical neglect.

Evaluation Instruments Designed

A DHS evaluation specialist designed three evaluation instruments for use in conducting an impact evaluation of the project (see appendixes B, C, and D of this report for copies of these instruments.)

Second-Year Plans

Intensified Recruiting/One-on-One Teaching. Recruiting for the elective course will be intensified, but emphasis will remain on one-to-one teaching. The project's ultimate goal is to lay the foundation for medical schools throughout Texas to establish child abuse and neglect electives.

Area-Wide Seminars. One of the primary tasks for the project's second year will be the planned consultation and collaboration with all seven other Texas medical schools to plan and hold several regional seminars that will educate area physicians, residents, and the general citizenry about child abuse issues.

Project Background

Use of the term "battered child syndrome" by Henry Kempe in a 1961 talk before the American Academy of Pediatrics and the subsequent article by Dr. Kempe et al., published in 1962 in the *Journal of the American Medical Association* (JAMA), created interest in the problem of child physical abuse. At that time, no state had a law requiring the reporting of child abuse. Twenty years after Kempe's description of "battered child syndrome," all states had enacted child abuse reporting laws. Reports of suspected child abuse and neglect increased from approximately 150,000 instances in 1963 nationwide to estimates of over 1.3 million in 1983.

WHY PHYSICIANS UNDERREPORT POSSIBLE CASES OF CHILD ABUSE

Although reporting of child abuse and neglect has been mandatory throughout most of the country for more than 10 years, individual reporting by practicing physicians contributes a small percentage to central child abuse registries nationwide (*Highlights of Official Child Neglect and Abuse Reporting*, American Humane Association, 1983).

Physicians' underreporting of child abuse and neglect remains a problem. There is strong evidence that **lack of knowledge about mandatory reporting laws and regulations** is a major reason physicians are not reporting case of child abuse and neglect.

Another of the most frequently cited reason for not reporting is the **reluctance to report before being certain of the diagnosis** of abuse or neglect and the belief that physicians can work with the family to solve the problem without outside intervention

(Saulsbury and Campbell, 1985, *American Journal of Diseases of Children*, Vol. 139, No. 4).

ADDRESSING THE PROBLEM THROUGH EDUCATION

One solution to the underreporting problem is education and training during medical school, residency, and after physicians begin their practice.

As the state agency responsible for child protective services (CPS), the Texas Department of Human Services (DHS) proposed a project of great potential significance both locally and nationally. The two-year effort, usually referred to by its short title "Medical School Elective (MSE) Project," addresses the problems of--

- physicians underreporting child abuse and neglect due to lack of knowledge and skills in diagnosing and treating these conditions and
- lack of knowledge about mandatory reporting laws and procedures.

Goal and Objectives

GOAL

The overall goal of the Medical School Child Abuse and Neglect Elective for Residents Project is to protect children by increasing physician reporting of child abuse and neglect. (For ease of reference hereafter, this report usually employs the short title Medical School Elective--MSE--Project.)

OBJECTIVES

Objectives for the two-year MSE Project are--

1. to develop and demonstrate a specialized elective for pediatric residents designed to educate residents about the laws and regulations relating to child abuse and neglect, including the withholding of medically indicated treatment for infants and children with life-threatening or disabling conditions;
2. to provide opportunities for residents to develop skills in the accurate diagnosis and treatment of child abuse and neglect;
3. to educate residents about the concept of illnesses of disabled children and the ethics of decision-making in treatment;
4. to provide opportunities for resident training in working with child protective services, law enforcement agencies, and the courts; and
5. to educate local physicians and other selected groups about child abuse and neglect, including the withholding of medically indicated treatment from disabled children, by sponsoring four seminars.

CHAPTER THREE

Project Operations and Accomplishments

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CONTRACT WITH TEXAS TECH

During this first project year, DHS's Administrative Region 2 entered into a contract with the Texas Tech University Health Sciences Center (HSC) in Lubbock to implement the MSE Project. The project director is Rafael R. Garcia, M.D., an assistant professor in the Department of Pediatrics at HSC. The director hired a full-time coordinator to assist him with the project's day-to-day operations.

CURRICULUM DEVELOPMENT

Before the project started, the director began a search of literature on child abuse and neglect issues. The initial four months of the project were devoted to updating and adding to his files of recent articles on child abuse/neglect and child sexual abuse issues. Also included in these files were recent articles on treatment of disabled infants and children and on the ethics of decision making for disabled children.

CHILD ABUSE/NEGLECT LIBRARY

As the project staff added to the number of articles, videotapes, and books about child abuse/neglect, they decided to set up a library. The library materials were used to develop study modules for the elective to be taught to pediatric residents in the Texas Tech School of Medicine. Pediatric residents, other students, and medical school staff were encouraged to use the library.

COURSE DESIGN

After compiling what he considered to be an adequate library, the project director began to design the medical school elective. He decided that the residents would devote 50 percent of their time to traditional medical school **clinical activities** (working with child abuse victims in outpatient and inpatient settings). In the other 50 percent of their time they would get **networking experience**, which included spending time with community agencies (e.g., child protective services units, the police department, the rape crisis center, the district attorney's office, and womens' protective services). Like other medical school electives, the child abuse elective would last for one month.

Academic Topics

The project director decided to use the following seven topics in the academic training phase of the course:

- medical neglect ("Baby Doe" issues);
- childhood injuries (unintentional);
- physical abuse;
- neglect (failure to thrive)
- sexual abuse;
- legal requirements; and
- medical testimony.

All topics were supplemented with teaching aids such as hand-outs or outlines, audiovisual aids, and discussion with the project director.

Clinical Experience

The course was designed to allow residents to gain networking experience with community agencies and clinical proficiency in working directly with children who are allegedly abused or neglected.

General Duties. The resident handled appointments with children referred to the Health Sciences Center and provided consultation to other hospital staff on suspected cases of abuse and neglect.

Also, the resident attended and participated in the interdisciplinary review team activities, conducted regularly with CPS staff from Lubbock and the 15 surrounding counties. The interdisciplinary review team, made up of community professionals, determines whether abuse or neglect has actually occurred and makes recommendations about treatment and placement.

It also was anticipated that the resident would testify when subpoenaed regarding his observation and diagnosis in child abuse and neglect cases.

ER On-Call Duty. An additional and unique feature of the elective's clinical experience was the opportunity to cover child abuse and neglect emergencies that came to the Lubbock General Hospital emergency room (ER). The resident was on call for ER child abuse/neglect cases from 5 p.m. to midnight on weekdays and from 8 a.m. to midnight on Saturdays and Sundays. Schedules for ER call were adjusted so that the resident could continue to fulfill her or his other on-call obligations.

The opportunity for ER duty made the elective more attractive to financially struggling residents because it paid a modest fee

for days that the resident was on emergency call--\$35 per day on weekdays and \$80 per day on weekends.

RECRUITING

During the first project year, the director and the coordinator conducted all recruiting activities.

Community Organizations

The project director discussed the MSE Project's goal with various organizations and individuals in the community, including the rape crisis center; the juvenile division of the Lubbock Police Department; women's protective services; the associate dean of Basic Sciences, Research, and Graduate Studies at Texas Tech University HSC; the associate vice president of HSC for academic affairs; the district attorney's office; defense attorneys; and the sheriff's office.

Many of the organizations later agreed to allow residents to come to their agencies and offered to serve as mentors for the one-month period when residents were enrolled in the elective.

Residents

To recruit residents to enroll in the elective, the project director and the coordinator mailed out flyers announcing the elective's goal and objective to pediatric residents. (Later, family medicine residents, too, were approached about enrolling.) These mailings were followed up with telephone calls. The project director also solicited the help of his fellow professors and asked them to talk about the elective during their classes and to encourage participation.

Results and Analysis

By March of the first project year, the newly developed elective had attracted only one pediatric resident. By that time, project staff had become aware of some of the difficulties they faced in trying to persuade residents to enroll in the course.

Allowing a month to get in-depth training in medical neglect and child abuse is nontraditional and not sufficiently emphasized or encouraged in residency training. Neither the American Academy of Pediatrics nor the American Board of Pediatrics requires a child abuse and neglect elective to complete pediatric training. Residents were skeptical about venturing into "new territory" and committing the necessary time and energy to the new elective when their schedules were already quite full.

ONE-ON-ONE TEACHING

Although only one resident enrolled in the formal elective, others showed interest in the area of child abuse and neglect. The project director took this opportunity to instruct individuals about the area of medical neglect and child abuse by teaching them one-on-one as they were faced with evaluating suspected cases of child abuse during their routine assignments in the outpatient clinic, hospital ward, or emergency room.

The project director observed that one-on-one teaching might be the only predictable way to access the resident and might present another alternative to achieve MSE Project goals. After consultation with the project specialist in Austin, the director decided that the opportunity to reach individuals in this manner was valuable and should be used to provide the most training that such limited time would allow. The decision was made to pursue one-on-one teaching as an alternative to the formal course while the director continues to seek enrollees for the one-month elective.

By the end of the first project year (August 1987), one resident had enrolled in the formal elective, and five residents (three in pediatrics and two in family medicine) benefitted from one-on-one teaching by Dr. Garcia. These residents participated in the examination and diagnosis of abused children, attended the interdisciplinary team review of cases, and received instruction and direction from the project director.

Community and In-Service Education

In addition to educating medical residents, educating the general community and established physicians was another primary objective of the project.

AREA-WIDE SEMINARS

During the first project year, the director conducted two community-wide seminars, one on child sexual abuse and the other on medical neglect ("Baby Doe" issues).

Child Abuse Seminar. The first event was a half-day seminar held in Plainview, Texas, and sponsored by the South Plains Health Provider Organization, Inc.--a regional primary care network.

Infant Neglect Seminar. The second seminar, titled *Infants in Peril: The Physician's Ethical and Legal Responsibility*, was an all-day event held in Lubbock at Texas Tech University (a copy of the flyer announcing *Infants in Peril* appears in Appendix A). At this seminar, nationally recognized experts and Texas Tech HSC faculty members participated in the program. Three nationally known speakers discussed the medical perspective, the ethical perspective, and the legal and judicial perspective on infants in peril.

Presentation. In June 1987, the project director gave a two-hour presentation on child abuse for physicians practicing in the El Paso area.

OTHER CONTACTS

Besides the area-wide seminars, the project director made initial written and phone contacts with physicians from the seven other medical schools in Texas to discuss the project and to solicit support for the project's goal. The project director visited the following Texas medical schools and one school of public health to talk about their participation in the project.

- University of Texas at Dallas – November 1986
- University of Texas at Houston – January 1987
- Baylor College of Medicine (Houston) – January 1987
- University of Texas School of Public Health – January 1987
- Texas A&M (Scott and White) Temple, Texas – August 1987
- Texas Tech Regional Academic Center, El Paso, Texas – June 1987

The project director also wrote and telephoned the Texas School of Osteopathy, Fort Worth; the Driscoll Foundation, Corpus Christi; and the University of Texas at Galveston. So far, he has been unable to establish effective communication with these three institutions.

SECOND-YEAR PLANS

During the second project year, Dr. Garcia will visit the seven other medical schools in Texas and will urge each school to sponsor a seminar for its area. In addition, Dr. Garcia will conduct two seminars for the Lubbock area. The project's ultimate goal is to have a child abuse elective in each of the eight medical schools in Texas.

Project Evaluation Plan

The project's impact evaluation plan was designed by an evaluation specialist in the Office of Strategic Management, Research, and Development (SMRD) in DHS's Austin headquarters. MSE Project survey instruments and questionnaires may be found in appendixes B, C, and D of this report.

Although an impact evaluation is planned for this project, the lack of enrollees in the child abuse and neglect elective may dictate the use of a process evaluation to relate project achievements.

Resolving Issues and Problems

During the first project year, several issues came up and had to be resolved. The nature of demonstration projects dictates that unforeseen issues will arise and will affect project operations. The MSE Project ran true to form. Reporting on the problems that arose (and how they were dealt with) may help some readers avoid them in their own projects.

"MESHING" DIFFERENT FISCAL SYSTEMS

Issue. The fiscal systems of the two agencies, DHS and Texas Tech University, were different. Even though the project staff initiated contract procedures three months before announcement of the grant award and involved the persons who could resolve issues, start-up was delayed because of unresolved fiscal procedures. Even after procedures were agreed upon, the first two months of billing for project expenses did not go smoothly.

Resolution. Preliminary agreements on fiscal procedures and contract negotiations need to go into effect before receipt of the grant. Even then, procedures might not go smoothly at first, but the awareness that these preparatory steps need to take place will greatly enhance project operations.

UNANTICIPATED DEMANDS ON DIRECTOR'S TIME

Issue. During the project year, the director found that the project's contract with the regional child protective services (CPS) unit resulted in more referrals than expected from the 15-county area. Although this outcome was desirable in itself, the project director had to devote considerable time to the examination of alleged child abuse victims, the interdisciplinary

review team, consultations, and preparing and giving court testimony. This time was taken from efforts to develop the project curriculum and other activities needed to run the project. Coupled with previously mentioned fiscal problems, the unanticipated demands on the director's time delayed hiring the project coordinator.

Resolution. As the coordinator was able, the project director turned over to her more of the curriculum research and development and day-to-day project operations. The coordinator handled routine correspondence, organizational and planning tasks for the seminars, and scheduling residents for the elective and for one-on-one instruction.

LOW ENROLLMENT

Issue. During the first project year, one resident enrolled in the formal one-month elective.

Resolution. Recruiting for the elective will continue during the project's second year.

The project coordinator and the director will design and disseminate a brochure announcing the elective. The brochure will be sent to Texas Tech medical students at the Lubbock and Amarillo campuses. Pediatric and family medicine residents will be targeted for enrollment into the elective.

Another resolution of the issue of low enrollment is the proposed shift in emphasis for the second project year. Although it is still desirable to have residents enroll in the formal one-month elective, the project staff now believe that one-on-one teaching may be the only predictable way to access the residents and provide the teaching to develop diagnosis and treatment skills.

Also, the emphasis on developing a child abuse elective for each of the seven other medical schools in Texas will be delayed. For its next year, the project will concentrate on en-

couraging each medical school to hold at least three regional seminars to educate physicians, residents, and the general public about child physical and sexual abuse and about medical and physical neglect.

APPENDIXES

Medical School Elective Project

APPENDIX A
Regional Seminar Flyer



Medical School Child Abuse and Neglect Elective for Residents (MSCANER)

INFANTS IN PERIL: THE PHYSICIAN'S ETHICAL AND LEGAL RESPONSIBILITIES

TOPICS: Advances in neonatal medicine over the last two decades ■ Review relevant court and agency decisions concerning "Baby Doe" issues ■ Discuss ethical principles to be considered in the management of the seriously ill newborn ■ Observe and participate with a mock bioethics committee in reviewing various cases of seriously ill newborns.

SPONSORS: C.A.R.E. Program, Department of Pediatrics, Texas Tech University Health Sciences Center with the support of the MSCANER Grant ■ Office of Continuing Medical Education, Texas Tech University Health Sciences Center ■ Texas Board of Legal Specialization

GUEST SPEAKERS: Arthur K. Kohrman, M.D., Director of La Rabida Children's Hospital and Research Center, Chicago, Illinois ■ Tom Murray, Ph.D., Professor of Ethics at the Institute for the Medical Humanities, University of Texas Medical Branch, Galveston, Texas ■ Dan Benson, J.D., Professor at Texas Tech University School of Law, Lubbock, Texas

PARTICIPATING TTUHSC FACULTY: Edgar Ledbetter, M.D., Professor, Department of Pediatrics ■ Edwing Contreras, M.D., Associate Professor, Department of Pediatrics ■ Rafael Garcia, M.D., Assistant Professor, Department of Pediatrics ■ Nancy Ridenour, Ph.D., Assistant Professor, School of Nursing

August 7, 1987

TTUHSC 2C-103, A and B

8:00 a.m. - 4:00 p.m.

APPENDIX B

Medical School Elective Project
Evaluation Instruments

MSCANER
DEPT. OF PEDIATRICS
TTUHSC

RESIDENT _____
DATE _____

**PRE/POST-TEST QUESTIONS
CHILD ABUSE AND NEGLECT**

* NOTE: More than one answer may be correct. Complete each question by circling the correct answer(s).

1. The most diagnostic finding in child abuse is:
 - a) fractures
 - b) burns
 - c) bruises
 - d) lesions in different stages of healing
2. Which of the following can be confused with child abuse?
 - a) Mongolian spots
 - b) von Willebrand's disease
 - c) erythema
 - d) bullous impetigo
 - e) toxic epidermal necrolysis
3. Which of the following skin findings are not commonly associated with child abuse?
 - a) ecchymoses
 - b) lacerations
 - c) petechiae
 - d) rope burns
4. Bruises predominating in which of the following areas are commonly associated with child abuse?
 - a) pretibial areas
 - b) elbows
 - c) cheeks
 - d) buttocks and lower back
 - e) neck

5. Careful inspection of the skin of a child with a suspected non-accidental injury can provide information about:
- a) the degree of superficial injury to the child
 - b) the type of internal injury sustained by the child
 - c) the kind of instrument used to inflict the injury
 - d) the apparent age of the injuries
 - e) the likelihood that the child might be injured again
6. Forced immersion burns occur most often in areas such as:
- a) buttocks
 - b) perineum and genital/rectal area
 - c) extremities
7. A child of three years is brought into the emergency room by the mother for treatment of second degree stocking-type burns of both feet. She is new to your hospital and to the neighborhood. She states she turned on the hot water tap in the bathtub and left the child sitting on the hamper in the bathroom while she answered the telephone. She thinks he must have jumped into the tub in her absence. On examining the child you find in addition to the burns a discolored bruise on one cheek and a well-healed linear scar on the child's back. Your decision to report this as a case of suspected child abuse is mainly based upon:
- a) the history, which is implausible given the nature of the injury
 - b) the other findings on physical examination
 - c) the mother is head of the household and has four other children
 - d) she has recently moved into the area
 - e) the injuries occurred at different times
8. A six-month-old infant is brought into the emergency room by his mother with the complaint that he has become fussy and irritable over the course of the day. He was apparently well until yesterday, but today has not felt well. The mother says he's always been difficult to care for, "but then, so were my three other children." On examination the child is clean but looks somewhat undernourished. He's irritable and difficult to examine and does not quiet down when you try to comfort him. There is a series of linear bruises on the left side of the face, and the left side of the mouth and ear are swollen. The fontanel is full but not

bulging. In response to your question, the mother says the 2-year-old sister hit the baby yesterday. At this point you would:

- a) call the appropriate authorities and report the case of suspected child abuse
- b) order a skull X-ray and long-bone series
- c) tell the mother you don't believe her story and confront her about injuring the child
- d) admit the child to the hospital for further observation and diagnostic studies
- e) discharge the child home with instructions to the mother on how to care for the child

9. The next steps in management of this situation would be to:

- a) call the appropriate authorities and report the case as suspected child abuse
- b) discharge the child home with a return visit scheduled in three days
- c) tell the mother you don't believe her story and confront her about inflicting the child's injuries
- d) spend some time talking with the mother to explore the family and social situation more fully
- e) obtain a neurosurgical consultation before proceeding further

10. Intra-abdominal injuries:

- a) are the most common non-accidental injuries
- b) occur in 20% of the children who die of non-accidental injury
- c) may occur without any bruises on the abdominal wall
- d) are usually inapparent and without symptoms

11. The most commonly inflicted intra-abdominal injury is:

- a) laceration or rupture of the intestine
- b) laceration or rupture of the liver or spleen
- c) intramural hematoma of the duodenum
- d) laceration or rupture of the kidney
- e) rupture of the inferior vena cava

12. A child suffering inflicted intra-abdominal injury may present with the following symptoms:

- a) abdominal tenderness
- b) projectile vomiting
- c) shock
- d) convulsions
- e) absent bowel sounds

13. Failure to thrive due to underfeeding:

- a) occurs more frequently than physical abuse
- b) is often easy to diagnose
- c) both
- d) neither

14. Failure to thrive has many causes, including:

- a) withholding food
- b) emotional deprivation
- c) inadequately prepared food
- d) poverty

15. Deprivational dwarfism has the following findings:

- a) normal weight for stature
- b) small stature
- c) normal head size
- d) retarded bone age
- e) bizarre behaviors

16. The following can be signs of neglect:

- a) failure to thrive
- b) poor skin hygiene
- c) rumination
- d) developmental lag
- e) self-stimulatory behaviors

17. Historical data from abusive families frequently includes:

- a) social isolation
- b) excessively high expectations of their children
- c) low self-esteem and expectation of personal failure

- d) income usually below \$5,000
 - e) poor communication between parents
 - f) suspicion of professionals
18. The perinatal history is very important in cases of suspected child abuse, especially under the following circumstances:
- a) the child is illegitimate
 - b) the child is born by Ceasarian section
 - c) the child had a prolonged newborn stay
 - d) multiple congenital anomalies
19. A 4-year-old boy is brought in for evaluation by a protective service worker. He has healed loop marks on his back and a new laceration above the eye. You suspect abuse. On beginning your examination he comes over to you and says you look tired and straightens the examining table. This behavior:
- a) is normal
 - b) demonstrates excessive interest in providing care for an adult
 - c) demonstrates good training and manners
 - d) is characteristics of some abused children
20. Children who have been abused may demonstrate:
- a) overcompliance
 - b) aggressiveness
 - c) fearfulness
 - d) developmental lag
 - e) hyperactivity
 - f) indiscriminate friendliness
 - g) lying to protect the parent
 - h) withdrawal
21. In evaluating the child with suspected non-accidental injury, the physician should attempt to:
- a) correlate the injury to the history provided
 - b) correlate the injuries with the developmental level of the child
 - c) both
 - d) neither

22. The most frequently documented form of sexual abuse involves:
- a) someone outside the home
 - b) incest between father and daughter
 - c) incest between mother and son
 - d) incest between brother and sister
23. Nonassaultive sexual abuse:
- a) involves a violent physical attack or a threat of violence
 - b) may produce physical injury
 - c) produces few, if any, physical injuries
 - d) usually involves someone outside the household
24. When interviewing a child who has been sexually abused, it should be remembered that:
- a) the child's perception may be different from an adult's perception of the same incident
 - b) the cognitive development of a child may cause the child to use words in a different context than an adult
 - c) the child should be approached in a nonthreatening manner
 - d) all of the above
25. When confronted with a case of sexual abuse, the physician should:
- a) perform a complete physical exam, documenting both history and physical findings, and evaluate both parents
 - b) report the abuse as required by law, and treat the victim's injuries
 - c) demand that the parents confess and report themselves to Protective Services
 - d) a & b
 - e) a & c
26. Which of the following lab evaluations should accompany the physical exam?
- a) anal and genital cultures for gonorrhea
 - b) blood test for syphilis
 - c) throat culture for gonorrhea
 - d) all of the above

27. To whom should a case of sexual abuse be reported?

- a) local newspaper reporter
- b) police
- c) Protective Service
- d) a & b
- e) b & c

28. The first management problem a physician must face in a child abuse case is:

- a) hostile parents
- b) personal feelings
- c) termination of parental rights
- d) maintaining confidentiality

29. Which of the following physician factors can have a calming effect on an abused child?

- a) physician's nonverbal behavior
- b) physician's verbal behavior
- c) physician's objective approach to the problem
- d) all of the above

For items 30 through 45 that follow, you are to respond either T (TRUE) or F (FALSE) to each alternative of each item. In a given item ALL, SOME, OR NONE OF THE ALTERNATIVES MAY BE TRUE. Of each alternative that you think is CORRECT, indicate (T) to the left of the lettered answer in your test book. For each alternative that you think is INCORRECT, indicate (F) to the left of the lettered answer.

30. Among children hospitalized for head injury, the risk of future development of a chronic convulsive disorder is increased in those who have:

- ___ a) skull fracture
- ___ b) intracranial hemorrhage
- ___ c) prolonged posttraumatic amnesia
- ___ d) focal signs

31. An 8-year-old boy has been evaluated for hyperactivity. He has a short attention span and is easily distracted. He has normal intelligence, and his neurologic findings are normal. His mother has read an article about methylphenidate (Ritalin) therapy for hyperactivity in children and asks your opinion regarding the following:

- ☐ a) Administration of the drug in the early morning exerts a therapeutic effect for 24 hours.
- ☐ b) Treatment at 8 years of age will have a long-term effect on the patient's academic achievement.
- ☐ c) The effectiveness of therapy can be measured by improvement in handwriting.
- ☐ d) Decrease in the velocity of height and weight gain has been reported.

32. A 4-month-old girl is brought to the emergency room by her mother, who is concerned that the infant has been vomiting forcefully for the past 16 hours. Two weeks ago, the infant had a seizure that lasted about one minute.

Examination reveals an irritable, afebrile infant with a bulging fontanelle. Vital signs are normal. She does not move her right upper extremity. There is no evidence of bruising. A funduscopic examination reveals clear disk margins bilaterally and a few retinal hemorrhages on the left. The emergency room physician consults you about the possibility of child abuse.

- ☐ a) the diagnosis of cerebellar astrocytoma must be excluded
- ☐ b) the absence of contusions on the head excludes child abuse
- ☐ c) a tetracycline-induced pseudotumor cerebri must be excluded
- ☐ d) careful evaluation must be made to exclude a whiplash type of injury

33. A 3-week-old, 1400 gm (3-lb), infant had a stormy course with respiratory distress syndrome. He had been doing well until recently when he became somewhat lethargic and began to feed poorly.

During an evaluation for sepsis, his cerebrospinal fluid (CSF) glucose level was found to be 7.0 mg/dl (serum glucose level is 167 mg/dl). His CSF is otherwise normal. You suspect that the infant may have had an earlier intracranial hemorrhage.

- ☐ a) Hydrocephalus is an uncommon sequela of intracranial hemorrhage.
- ☐ b) CSF glucose level decreases at the time of intracranial hemorrhage.
- ☐ c) Decreased CSF glucose levels sometimes persist for several weeks.
- ☐ d) Decreased CSF glucose levels are usually present by the second week after hemorrhage.

34. A 4-year-old boy is found to have traumatic rupture of the spleen. As he is prepared for possible splenectomy, the parents ask you about possible complications of splenectomy, should it be required.

- ☐ a) Removal of all splenic tissue increases the risk of development of septicemia in the future.
- ☐ b) There are surgical techniques that can be used to preserve some or all of the spleen.
- ☐ c) Postsplenectomy platelet counts often become elevated enough to require therapy with anticoagulants.
- ☐ d) Males are more at risk of development of postsplenectomy infection than females.

35. You would like your office personnel to learn to administer the Denver Developmental Screening Test (DDST).

- ☐ a) It is a relatively reliable predictor of future academic problems for children.
- ☐ b) Children with borderline-low performance on the DDST frequently have IQ's less than 80.
- ☐ c) It is a reliable screening device for children 2 to 6-years-of age.
- ☐ d) It measures cognition, language development and gross and fine motor ability as well as personal-social aspects of development.

36. A family in your practice has just experienced the loss of a 1-month-old infant from the sudden infant death syndrome. The surviving siblings are ages 3, 8 and 12 years. The parents question you regarding possible responses of the surviving siblings to this event and the approaches that they can use in assisting their children to cope and adjust to the unexpected loss.

- ☐ a) The surviving children often are the most neglected family members after the unexpected death of an infant.
- ☐ b) During the grieving process, some parents are incapable of coping emotionally and empathically with the needs of their surviving children.
- ☐ c) Inclusion of the surviving children in discussions that provide information on the sudden infant death syndrome generally will increase the intensity of their grief and anxiety.
- ☐ d) Children often believe that unexpected death of a sibling is a direct punishment for that sibling's bad behavior.

37. Statements concerning burns in children include:

- ☐ a) Fire mortality in the United States is the highest of industrialized nations.
- ☐ b) Only a small percentage of serious burn injuries occur in the home.
- ☐ c) Burns resulting from scalding typically occur in infants (ages 6 to 24 months).
- ☐ d) Burns resulting from electric extension cords typically occur in toddlers (ages 2 to 4 years).

38. Long-term follow-up studies indicate that children diagnosed as hyperactive, when compared with a control group of normal children, have in late adolescence and early adulthood an increased incidence of:

- ☐ a) impulsive personality
- ☐ b) inferior academic achievement
- ☐ c) low self-esteem
- ☐ d) restlessness

39. A 4-month-old infant is admitted to the hospital because of a three-week history of constipation, poor feeding and generalized weakness. He was the product of a full-term, uncomplicated pregnancy and normal labor and delivery. He is fed only breast milk.

Examination reveals a floppy, poorly responsive infant who is otherwise normal. Within 24 hours of admission respiratory distress, bilateral ptosis and sluggishly reactive pupils develop. These symptoms relate to the diagnosis listed below.

- ☐ a) intracranial hemorrhage
 - ☐ b) organic-phosphate intoxication
 - ☐ c) infant botulism
 - ☐ d) group B streptococcal septicemia
 - ☐ e) hypothyroidism
40. An 8-month-old boy has a history of weight loss and vomiting of two months' duration. Roentgenographic findings of the intestinal tract and results of esophageal motility studies are normal. No improvement in the infant's condition is noted after milk is eliminated from the diet or when the infant is propped upright after feeding. The infant's probable diagnosis is listed below.
- ☐ a) gastroesophageal reflux (chalasia)
 - ☐ b) congenital hypertrophic pyloric stenosis
 - ☐ c) congenital virilizing adrenal hyperplasia
 - ☐ d) achalasia
 - ☐ e) rumination syndrome
41. A 9-month-old infant is referred to you for evaluation of the possibility of arrested hydrocephalus. At birth his head circumference was at the 98th percentile; currently his head measures 48 cm (19 in; 98th percentile). His 6-year-old brother is slightly retarded and is in a special-education class. The father tells you that he himself "could never find a hat large enough to fit." The most appropriate first step in evaluation of this patient's condition is:

- ☐ a) obtain roentgenograms (posterior and lateral views) of the skull
- ☐ b) measure the head circumferences of all family members
- ☐ c) obtain computed tomography (CT scan) of the head
- ☐ d) refer to psychometric testing
- ☐ e) measure cerebrospinal fluid pressure and protein level

42. You suspect upper gastrointestinal bleeding as a cause of hematemesis in a 10-year-old patient. The immediate diagnostic procedure of choice is:

- ☐ a) upper gastrointestinal roentgenographic series
- ☐ b) screening tests for a bleeding disorder
- ☐ c) radionuclide scan of the abdomen
- ☐ d) laparotomy
- ☐ e) fiberoptic endoscopic examination

43. A 6-year-old boy has a recently acquired circular spot of baldness measuring 3 cm in diameter at the top of the scalp. The sharply defined patch is surrounded by normal-appearing hair, and the exposed skin of the scalp is completely devoid of broken hairs, scales or inflammation. The most likely diagnosis is:

- ☐ a) trichotillomania
- ☐ b) alopecia areata
- ☐ c) hypothyroidism
- ☐ d) tinea capitis
- ☐ e) toxic alopecia

44. An 11-year-old girl has repeated episodes of vomiting and becomes lethargic following a viral infection. Her clinical state fulfills the criteria for Reye's syndrome. Laboratory studies reveal marked elevation of serum liver enzyme activities and blood ammonia level. Shortly after admission to the hospital she becomes comatose. Statements relating to this case include:

- ☐ a) Hyperventilation is sometimes helpful in lowering increased intracranial pressure.
- ☐ b) Continuous monitoring of intracranial pressure can be accomplished through either an intraventricular cannula or a subarachnoid bolt.
- ☐ c) Her intracranial pressure, if elevated, should be maintained at a level that is barely less than the mean systemic blood pressure.
- ☐ d) Intracranial hypertension, if present, can sometimes be controlled by intermittent bolus injections of small doses of mannitol.

45. A patient you are treating for a seizure disorder and emotional disturbances received a severe head injury in an automobile accident. He is now being sustained on a respirator. An initial electroencephalogram is isoelectric ("Flat"). To determine whether brain death has occurred, the following should be done:

- ☐ a) obtain another electroencephalogram in 24 hours
- ☐ b) test for the presence of cranial nerve reflexes
- ☐ c) determine the blood level of phenobarbital
- ☐ d) determine the presence of hypothermia

You have now completed the True/False Section of the test. Please continue by circling the correct answer(s) in the questions which follow.

46. True statements concerning sexual behavior in small children include:

- a) Prepubescent children have sexual feelings.
- b) Frequent masturbation usually reflects a deterioration in parent-child relationships.
- c) Masturbatory behavior should be controlled by appropriate behavior modification.
- d) Sexual behavior is culturally learned.

47. A 16-year-old girl confides to you that she is involved in "heavy petting" and asks your advice as to ways of avoiding pregnancy. You should discuss with her:

- a) abstinence from intercourse
- b) use of oral contraceptives
- c) use of intrauterine devices
- d) use of condoms by her partner

48. The MOST appropriate treatment for persistent gonococcal urethritis after adequate penicillin therapy is:

- a) tetracycline
- b) spectinomycin
- c) cefoxitin plus probenecid
- d) amoxicillin plus probenecid
- e) cefotaxime

49. For several months a 10-year-old boy has had symptoms of sadness, loss of appetite, poor concentration and poor school performance. There is no history of sleep disturbances or suicidal thoughts. You can find no evidence for physical disease and have diagnosed depression.

Which of the following should be included in your plans for therapy?

- a) exploration of family dynamics
 - b) determination of his perception of his relationships with his family and friends
 - c) a trial of a mood-elevating drug
 - d) a trial of a tranquilizer (hydroxyzine [Atarax])
50. A 14-year-old girl is brought to you because she is depressed and performing poorly in school. Initial evaluation indicates a need for a pregnancy test, which is positive. During a counseling session with your nurse-associate the patient alleges that she has been impregnated by her father.

The statement that is more likely to describe this incestuous relationship best is:

- a) The child is probably a passive victim of an aggressive act.
 - b) The mother is probably completely unaware of the relationship.
 - c) Both parents as well as the child play active roles.
 - d) It probably represents an isolated manifestation of social disorganization in the home.
 - e) The child's statement is probably a fabrication.
51. A 12-year-old boy who sustained an open skull fracture is being prepared for surgery. Preoperative hemoglobin level and white blood cell count are normal. The platelet count is 97,000/mm, the prothrombin time and the activated partial thromboplastin time are prolonged, and the serum level of fibrin split products is elevated. A diagnosis of disseminated intravascular coagulopathy is made.

TRUE statements concerning head injury and coagulopathy include:

- a) More than 50% of children with significant acute brain trauma will have at least one abnormal clotting test result.
- b) The severity of the coagulopathy is unrelated to the type of brain injury.
- c) The presence of disseminated intravascular coagulopathy is a poor prognostic sign in patients with head injury.
- d) In patients with head injury and disseminated intravascular coagulopathy, microthrombi may develop in organs external to the central nervous system.

52. Factors associated with increased risk of suicide attempts by self-poisoning in adolescents include:

- a) history of chronic drug abuse
- b) family history of suicide
- c) symptoms of depression
- d) family history of alcoholism

53. The mother of three children tells you that she was recently divorced and seeks advice on dealing with possible effects on the children of the divorce. You should tell her that:

- a) because of egocentric thoughts, a young child is likely to believe that he or she is responsible in some way for the divorce
- b) the children should be encouraged to express their feelings about the divorce
- c) the oldest boy may be helped by encouraging him to assume a more manly role in the family
- d) most divorced parents are so concerned with their own feelings that they poorly perceive the children's concerns

54. The standard size of aspirin tablets for children ("baby aspirin") is 81 mg (1 grain) of acetylsalicylic acid. A new dosage schedule has been approved by the Food and Drug Administration (FDA). This can be expressed to a mother as the amount to be given every four hours as:

- a) one tablet per 5 lb (1.3 kg) of body weight
- b) one tablet per 15 lb (7 kg) of body weight
- c) one tablet per 25 lb (11.4 kg) of body weight
- d) one tablet per year of age

55. A 7-year-old girl was treated for a gonorrheal vaginal infection with penicillin, to which the organism was reported to be sensitive. The discharge persisted, but two subsequent cultures for gonococci were negative.

The MOST likely explanation for the continuing discharge is that the patient:

- a) still has gonorrhea, and the negative culture is the result of poor technique in obtaining the specimen
- b) has a streptococcal infection
- c) has a chlamydial infection
- d) has a trichomonal infection

56. An adolescent patient tells you he is sexually active and his partner is also your patient. He asks you about contraception.

What is the MOST appropriate course for you to take at this time?

- a) assure him you will prescribe birth control pills for his partner
- b) advise abstinence from further sexual intercourse
- c) advise use of a condom
- d) invite both sets of parents in to talk about the problem
- e) talk to both adolescents together about the many adverse effects of venereal disease

57. A 15-year-old girl has a 48-hour history of right-sided chest pain that is aggravated by deep inspiration, cough, shaking chills, and fever. Two weeks ago, she had an elective abortion by dilation and extraction for a pregnancy of approximately 16 weeks gestation. She has resumed taking birth control pills.

The MOST likely diagnosis is:

- a) bacterial pneumonia
- b) pulmonary embolism
- c) acute pericarditis
- d) acute cholecystitis
- e) costochondritis

58. You are asked to review the policy in your hospital nursery regarding prophylaxis and treatment of neonatal ophthalmia.

Each of the following statements is true EXCEPT:

- a) One percent silver nitrate preparations are effective prophylaxis for chlamydial infections.
- b) Prophylaxis can be delayed up to 1 hour after birth.
- c) Preparations should not be flushed from the eye.
- d) Gonococcal ophthalmia can be treated with intramuscular penicillin.
- e) Strains of Neisseria gonorrhoeae resistant to penicillin should be considered when planning therapy.

59. A 3 year-old-girl has a mucopurulent vaginal discharge.

TRUE statements regarding infection with Neisseria gonorrhoeae in this patient include:

- a) Prepubescent vaginal epithelium is resistant to this organism.
- b) Sexual contact is a primary consideration.
- c) Nonsexual transmission can occur.
- d) Other mucosal surfaces are commonly involved.
- e) Dysuria is a frequent presenting symptom.

60. The parents of an 18-month-old boy who has just undergone early screening for developmental delay and disability are extremely upset because his test score was low. The boy appears normal to you, and there are no obvious signs of disability.

TRUE statements about infant screening for developmental delay and disability include:

- a) General screening of children between 5 and 24-months-of-age using the Denver Developmental Screening Test reliably identifies those who will have learning problems in the future.
- b) General screening of children between 6 and 24-months-of-age using the Developmental Screening Inventory reliably identifies those who will have learning problems in the future.
- c) A child with a low screening test score should be re-evaluated periodically.
- d) Mass screening is different from testing infants preselected for risk of disability.

61. A 24-month-old infant who weighed 1,200 gm at birth has craniotabes, poor muscle tone, and enlargement of the costochondral junction. You suspect rickets.

Possible causes of rickets include:

- a) cystic fibrosis
 - b) soy-based, lactose-free formula feedings
 - c) macrobiotic diet
 - d) renal tubular acidosis
62. TRUE statements concerning 2-year-old children who have had bronchopulmonary dysplasia include:
- a) Most of them have significant respiratory symptoms at rest.
 - b) Most of them experience accelerated growth with improvement of respiratory symptoms.
 - c) Their developmental outcome relates primarily to the presence of the disease.
 - d) Most of them have residual pulmonary changes demonstrated by roentgenography.
 - e) There is an increased number of lower respiratory tract infections during the first 2 years of life.
63. A 10-year-old child has the sudden onset of hemiparesis. There are no abnormal physical findings outside the central nervous system. There are no signs of increased intracranial pressure. Results of computed tomography are consistent with an ischemic stroke. Result of cerebrospinal fluid studies are normal.

Laboratory findings associated with this circumstance include:

- a) sickle hemoglobin
 - b) positive LE preparation
 - c) decreased platelet count
 - d) increased level of triglycerides in the serum
64. A patient of yours is a chronic carrier of hepatitis B virus surface antigen (HBsAg) but is HBeAg negative. You are asked by the school system if this child can transmit the disease within the classroom.

TRUE statements about this situation include:

- a) Hepatitis B can only be transmitted parenterally, therefore there is no risk of transmission in the classroom.
 - b) Hepatitis B can be transmitted in the classroom setting, but the risk is low.
 - c) The absence of HBeAg decreases the infectivity of children with hepatitis B infection.
 - d) Hepatitis B vaccine should be given to your patient prior to his going back to school.
 - e) The number of HBsAg carriers in school systems is increasing.
65. You are considering using hepatitis B virus (HBV) vaccine in your practice when it becomes available.

TRUE statements concerning HBV vaccine include:

- a) It consists of inactivated hepatitis B surface antigen (HBsAg) particles from plasma of chronic carriers.
 - b) Side effects are less frequent than reported for other formalin-inactivated, alum-absorbed vaccines.
 - c) Development of detectable antibodies to HBsAg confers immunity to clinical hepatitis B and prevents asymptomatic antigenemia.
 - d) Current experience indicates that booster immunizations will not be required.
 - e) High-risk groups who should receive the HBV vaccine include the newborn infants or spouses of chronic HBsAg carriers.
66. A 4-year-old boy falls out of a tree and fractures a femur. Physical examination on admission to the hospital is normal, except for evidence of the fracture. Complete blood count, urinalysis, and abdominal ultrasound examinations are normal. The orthopedic surgeon elects to treat the child with traction.

On the fourth hospital day, the boy complains of headache and has the sudden onset of a generalized tonic-clonic seizure. His blood pressure is 150/110 mm Hg.

The MOST likely etiology of the hypertension and associated hypertensive encephalopathy is:

- a) immobilization hypercalcemia
- b) renal artery stenosis
- c) traction-related hypertension
- d) essential hypertension
- e) renal hematoma

67. A 5-month-old girl is brought to the emergency room with a history of vomiting for 6 hours. The parents also report that earlier in the day the child fell off a couch onto a carpeted floor. On physical examination, the child has a temperature of 39.5°C (103°F) and is very irritable. No bruises are noted on the scalp or body, but she does have findings consistent with otitis media of the left ear. Treatment is initiated with parenteral fluids and cephalexin. Over the next 12 hours, the vomiting stops, but the fever persists. A grand mal convulsion occurs the following day.

The MOST likely cause of the seizure is:

- a) hyponatremia
- b) fever
- c) meningitis
- d) subdural hematoma

68. A 3-year-old girl is brought to your office by her father because "she has had a high fever and cough for 2 days". On physical examination, the child appears healthy and is afebrile, although she does have a mild, upper respiratory tract infection. There is a clear dichotomy between the intensity of the father's concern and your findings. Although you have cared for this youngster and her two older siblings for several years, you have never before met the father.

TRUE statements regarding circumstances such as this include:

- a) By spending a few extra minutes with parents, the experienced pediatrician usually can uncover the true reason for a visit.
- b) Parents of a sick child appropriately have some anxiety.
- c) Excessive anxiety suggests there may be an underlying, un verbalized reason for a visit.

- d) A family history of similar initial symptoms, but associated with severe morbidity or death, may precipitate the decision for a visit.
 - e) Doubt raised in the parent's mind by an authority figure (such as a grandparent) may precipitate a visit.
69. TRUE statements about parents who have lost a child from sudden infant death syndrome include:
- a) During the first 3 to 4 months following a sudden infant death, the father often has an intense desire for a subsequent pregnancy.
 - b) During the first 3 to 4 months following a sudden infant death, the mother often has an intense fear of a subsequent pregnancy.
 - c) The father often blames himself for a lack of involvement in the care of the dead child.
 - d) Anger frequently is a prominent feature of the father's grief response.
 - e) The mother is more likely than the father to request crisis intervention.
70. Early language milestones are sensitive indicators of children's developmental status. Speech or language delay during infancy may be caused by:
- a) mental retardation
 - b) deafness
 - c) dysarthria accompanying cerebral palsy
 - d) communicative disorders
 - e) behavior problems

QUESTIONS 71-74 ARE CASE-RELATED

71. An 8-year-old boy is found to have an activated partial thromboplastin time (APTT) of 53 seconds (Normal is 35 to 45 seconds) prior to elective surgery. Past history reveals he has had frequent nose bleeds and large ecchymoses following play-related trauma; however, the family never sought medical care for these problems.

Of the following, which is the MOST likely explanation for this laboratory finding?

- a) Factor VII deficiency
- b) Factor VIII deficiency
- c) Factor XIII deficiency
- d) Aspirin (acetylsalicylic acid) ingestion

72. A careful family history reveals the mother had von Willebrand's disease.

The APTT will be repeated and a platelet count obtained. In addition to these studies, which of the following tests would be MOST useful?

- a) Clotting time (Lee-White)
- b) Factor VII level
- c) Bleeding time
- d) Prothrombin time
- e) Fibrinogen level

73. The results of the screening tests suggest a diagnosis of von Willebrand's disease in the young boy.

- a) Cancel surgery; plan further testing of the patient and family members.
- b) Cancel surgery; plan no further testing.
- c) Administer Vitamin K; if the APTT corrects, proceed with surgery.
- d) Administer hepatitis B vaccine to the patient; reschedule surgery in 4 weeks.

74. Before discharge, the boy develops an acute surgical abdomen, and the surgeon recommends exploratory laparotomy.

What would be the BEST preoperative preparation for the patient in this situation?

- a) platelet transfusion
- b) administration of cryoprecipitate
- c) administration of aminocaproic acid
- d) administration of fresh human plasma protein fraction
- e) plasmapheresis

QUESTIONS 75 - 78 ARE CASE-RELATED

75. A 4-year-old boy has limped for 1 day and has pain in his left ankle. On examination, you find the patient's ankle is swollen, and there is evidence of effusion in the joint.

Which of the following items is LEAST likely to be helpful in diagnosing this child's problem?

- a) history of recent trauma
- b) history of fever, lethargy, or weight loss
- c) history of previous bone or joint pain
- d) results of recent analgesic medication use
- e) history of photophobia, ocular pain, or apparent decreased visual acuity

76. Of the following organ systems, which is LEAST likely to produce an abnormal finding on physical examination of this boy?

- a) reticuloendothelial
- b) cardiovascular
- c) dermal
- d) nervous
- e) endocrine

77. No other joints appear to be involved. His temperature is 39°C (102.2°F).

Which of the following laboratory tests would you do FIRST?

- a) bone scan
- b) serum protein electrophoresis
- c) complete blood count, platelet count, and erythrocyte sedimentation rate
- d) rheumatoid factor
- e) examination of joint fluid

78. Laboratory studies reveal hemoglobin, 12.9 mg/dl; hematocrit, 38%; white blood cell count, 19,800/mm, with neutrophils 64%, bands 13%, lymphocytes 20%, and monocytes 3%. The joint fluid appears serous, and bacteria are seen on Gram stain. Cultures of joint fluid and blood are pending, as are all other determinations. The

patient has become increasingly febrile and complains of severe pain. The parents ask you to "do something" even though a definitive diagnosis has not been established.

The BEST treatment in this situation is:

- a) acetaminophen
- b) high-dose salicylates
- c) a corticosteroid preparation
- d) gold salts
- e) indomethacin

79. An 8-month-old girl is brought to the emergency department by her mother because of swelling and decreased use of the right arm. The mother denies any history of trauma. Roentgenograms show a dislocated right elbow; a transverse, undisplaced, metaphyseal fracture of the proximal right humerus; recent distal metaphyseal fractures of the right radius and right ulna; and an old healing fracture of the right tibia. History reveals that the child was born at 33 weeks gestation and weighed 1,800 gm at birth. The nursery staff had taught the mother how to perform passive exercises with the infant, and she and the baby's father had continued this physical therapy program regularly.

TRUE statements regarding this situation include:

- a) Passive exercise can produce bone injury in preterm infants.
- b) The differential diagnosis includes child abuse.
- c) The differential diagnosis includes bony changes related to long-term prostaglandin therapy.
- d) Passive exercise enhances growth in preterm infants.
- e) Passive exercise decreases muscle spasticity in preterm infants.

80. A previously well 15-month-old girl is admitted to the hospital following a near-drowning episode for which she received on-site cardiopulmonary resuscitation. A check roentgenogram obtained at the time of admission reveals bilateral fractures of the 7th and 8th ribs.

TRUE statements regarding rib fractures in children include:

- a) They are a common sequelae of cardiopulmonary resuscitation.
- b) They commonly are manifestations of child abuse.
- c) Multiple fractures of varying ages affecting adjacent ribs usually indicate child abuse.
- d) They often are the only roentgenographic evidence of metabolic bone disease.

81. An 18-month-old black boy is brought to the emergency department by his parents who have just returned from a 3-day business trip. Approximately 48 hours earlier, the baby-sitter found the child playing with a box of naphthalene moth balls. The baby-sitter took the moth balls away but otherwise was not concerned.

On examination, the patient appears pale; the remainder of the physical findings are normal. Laboratory test results include: hemoglobin, 7.2 gm/dl; hematocrit, 21%; white blood cell count, 6,400/mm with a normal differential; platelet count, 350,000/mm, and reticulocyte count, 8.5%. A smear of the peripheral blood reveals Heinz bodies and numerous irregular, dense, misshapen erythrocytes with an asymmetrical distribution of hemoglobin and an adjacent membrane-bound clear zone. Results of an assay of erythrocytes for glucose-6-phosphate dehydrogenase found G6PD activity of the enzyme to be in the low normal range.

The MOST likely diagnosis is:

- a) anemia secondary to acute blood loss
- b) sickle cell disease
- c) iron-deficiency anemia
- d) homozygous α -thalassemia
- e) glucose-6-phosphate dehydrogenase deficiency

82. A 2-year-old boy was bitten by a neighbor's dog and is brought in for treatment of multiple facial lacerations.

TRUE statements concerning dog bites in young children include:

- a) Most dogs involved have never attacked anyone previously.
- b) Most attacks are provoked by the child.
- c) Most infant victims are attacked when alone in a crib.
- d) Injuries to young children frequently involve the head, face, or neck.
- e) German shepherd is the breed most commonly involved in fatal attacks.

83. TRUE statements regarding commercial mouthwash include:

- a) Toxicity is directly related to the ethanol content.
- b) The concentration of ethanol in most commercially available mouthwashes is higher than that in beer.
- c) The amount of ethanol in a 12 oz. bottle of mouthwash is potentially lethal for a 2-year-old child.
- d) Ingestion of mouthwash can result in hypoglycemia.
- e) Ingestion of mouthwash is most common in 6 to 10-year-old children.

84. A 3-year-old boy is rushed to the hospital emergency department following the sudden onset of lethargy and vomiting. Approximately 5 to 6 hours earlier, he had been playing in his grandmother's bedroom. Just before leaving for the hospital, the family discovered that 35 to 40 digoxin tablets (0.25 mg each) were missing. Physical examination on admission reveals marked somnolence, a respiratory rate of 10 breaths per minute, a heart rate of 180 beats per minute, and a blood pressure of 90/65 mm Hg. An electrocardiogram shows ventricular tachycardia. Serum electrolyte levels are normal.

Appropriate management of this patient includes intravenous administration of:

- a) lidocaine
- b) digoxin-specific Fab antibody fragments
- c) propranolol
- d) phenytoin
- e) potassium chloride

85. You have accepted responsibility for the medical care of a 10-year-old boy just placed in a foster home because his mother is undergoing a complicated pregnancy requiring complete bed rest. The boy's father has abandoned the family and cannot be located.

TRUE statements regarding foster care include:

- a) Once placed in foster care, most children remain in this type of care for at least 5 years.
- b) Lack of predictability in the life of a foster child interferes with development of a healthy attachment between the child and any adult who should serve as his psychologic parent.
- c) Contact between the child in foster care and his or her parents should be discouraged.
- d) Immunization records for children in foster care frequently are either absent or not up to date.
- e) Children placed in foster care have more medical problems than children living with their own parents.

86. Parental divorce may precipitate an episode of depression in the preschool-aged child.

TRUE statements concerning childhood depression in this situation include:

- a) The depression may be manifested by sleep disturbances.
- b) The child often shows increased resistance to authority.
- c) The child often feels guilty.
- d) Depression may lead to persistence of symptoms in reaction to the divorce for longer than expected.

87. A drug user of some experience has developed fatigue, red eyes, stuffy nose, and sore throat.

TRUE statements about this stage of drug abuse include:

- a) Highs are experienced with few side effects afterward.
- b) Mild guilt occurs after the high.
- c) Overdosing may occur.
- d) Solo use is frequent.

88. TRUE statements regarding suicide attempts in adolescents following elective abortion include:

- a) Suicide attempts are more likely to occur in adolescents who have a history of previous psychiatric disturbance.
- b) The date of the suicide attempts often coincides with the calculated delivery date.

- c) Elective abortion increases the risk of self-destructiveness in the vulnerable adolescent.
 - d) The attempt may represent the need for personal punishment for the death of the fetus.
89. Proper roles for a pediatrician in a drug education program for high school students include:
- a) assisting with overall program development
 - b) reviewing the teaching materials to ensure accuracy
 - c) participating in presentations
 - d) counseling students individually
90. A 3-month-old boy has had diarrhea for almost 4 weeks. He has lost weight and appears malnourished.
- TRUE statements regarding intractable diarrhea of infancy include:
- a) Age at time of onset is usually less than 3 months.
 - b) Small bowel biopsy usually reveals mucosal injury.
 - c) Short-term fasting is usually beneficial.
 - d) An elemental diet may be required for several months.
 - e) Parenteral nutrition may be necessary.
91. Three weeks after the death of a 2-month-old infant who had multiple anomalies, the parents of the child come to your office for counseling. Which of the following are common reactions in this situation?
- a) The parents express relief that the child has died.
 - b) The parents report engaging in fantasies about the child's death prior to its occurrence.
 - c) The parents feel guilty for having wished for the death of their child.
 - d) The parents exhibit feelings of denial about their child's death.
92. An infant born with multiple, disfiguring, congenital malformations dies at 4 hours of age.

Appropriate management would include:

- a) obtaining chromosome studies on the infant
- b) obtaining an autopsy on the infant
- c) obtaining photographs of the infant
- d) discouraging the parents from seeing or holding the dead infant

93. The first-born infant of a young couple has an encephaly which was not anticipated prior to delivery of the infant.

TRUE statements about this circumstance include:

- a) The unexpected loss of the anticipated normal infant is a devastating event for parents.
 - b) A delay in informing the parents of severe defects in the infant will permit the emotional status of the mother to stabilize in the immediate postpartum period.
 - c) Shock and denial regarding the true facts require repeated discussions with the parents to gain their acceptance of reality.
 - d) Most parents finally accept their severely defective infant.
94. The newborn first child of a young couple has a myelomeningocele beginning at the midthoracic level and extending through the lumbar region. The infant's anus is patulous, and the legs are flaccid. The head is normal in appearance and in measured circumference.

As you counsel the parents, TRUE statements to keep in mind include:

- a) Some parents respond with rejection and even abuse toward a defective child.
- b) Health professionals are generally more comfortable with an aggressive treatment plan than they are with a limited intervention plan, irrespective of the prognosis and/or quality of life expected for the infant.
- c) In certain families, explanations given directly to the grandparents may be helpful in reinforcing information given to parents.
- d) Younger physicians in neonatal intensive care units frequently fail to verbalize their personal frustration and depression when faced with caring for severely handicapped infants.

95. A mother has delivered an infant, with an encephalocele, who expired twelve hours after birth. Appropriate management should include:

- a) Suggest that the family have another child soon.
- b) Help the parents contact support groups who have had similar experiences.
- c) Quietly transfer the baby to the morgue.
- d) Recognize that grieving may last for months.
- e) Explain to the mother that she may have illusions about the baby.

96. A full-term infant is noted to have respiratory distress in the first hour of life. Decreased breath sounds are noted on examination of the left side of the chest. A roentgenogram confirms the diagnosis of diaphragmatic hernia. You arrange for transfer in an incubator to a pediatric surgical center.

Other measures which are appropriate in the preoperative management of this patient include:

- a) insertion of a nasogastric tube and frequent aspiration
- b) assisted positive pressure ventilation, using a face mask and oxygen
- c) serial determinations of arterial blood gas values and pH for monitoring and correction
- d) assisted positive pressure ventilation, following endotracheal intubation
- e) assessment of the infant for a congenital cardiac malformation

97. A colleague tells you about a newborn infant who developed a gastric perforation. Characteristics associated with this condition include:

- a) a history of maternal obstetric complications
- b) abdominal distension is a common early sign
- c) symptoms typically appear within the first 48 hours of life
- d) mortality is high
- e) concurrent perforation at other intestinal sites is common

98. Causes of abdominal pain that occasionally mimics recurrent functional abdominal pain in children include:

- a) pin worm infestations
- b) lactose malabsorption
- c) inflammatory bowel disease
- d) peptic ulcer disease

99. A 15-year-old girl is found to be in coma after ingesting an unknown number of phenobarbital tablets.

The BEST treatment in this situation is:

- a) induction of emesis using Ipecac Syrup
- b) administration of activated charcoal
- c) forced alkaline diuresis
- d) administration of a central nervous system stimulant
- e) administration of a specific antidote

100. During a routine preschool physical examination of a 5-year-old girl, you note that her height is well below the third percentile, whereas her weight is at the 15th percentile.

Further evaluation should include all of the following EXCEPT:

- a) buccal smear
- b) determination of a bone age
- c) determination of serum thyroxine level
- d) determination of urinary excretion of free cortisol
- e) determination of a serum growth hormone level after having the patient walk for ten minutes

You have reached the end of the exam.

Thank you for your time and cooperation in completing this test.

APPENDIX C

Child Abuse and Neglect
Rating Questionnaire

CHILD ABUSE AND NEGLECT ELECTIVE RATING QUESTIONNAIRE

The Child Abuse and Neglect elective includes clinical and field experience as well as a didactive (seminar) approach. The questions below are designed to capture your opinions about the components of the elective. Please respond to each question and return the questionnaire to Karla King.

1. Indicate the areas in which you observed or participated during the elective:
(Check all that apply)

- | | |
|---|--|
| ☐ Outpatient clinic | Field placement with: |
| ☐ Emergency room | ☐ District Attorney |
| ☐ Hospital consultation | ☐ Child Protective Services |
| ☐ Interdisciplinary review | ☐ Lubbock Police Department |
| ☐ Court testimony | ☐ Rape Crisis Center |
| | ☐ Other: _____ |

2. Indicate which TWO of the areas above were most beneficial to you and why:

3. Indicate the areas in which you received information during the didactive (seminar) component: (Check all that apply)

- ☐ General information (awareness of child abuse and medical neglect, severity of problem, cross-cultural issues)
- ☐ Interviewing and protocols (visual diagnosis, distinguishing abuse from the medical conditions that mimic it)
- ☐ Legal protocols (Texas Family Code)
- ☐ Medical neglect (ethics of case management, "Baby Doe" cases)

4. Indicate which TWO of the areas above were most beneficial to you and why:

5. A variety of formats were used in order to present information. Indicate your opinion about the effectiveness of each format:

Articles and readings	NA	1	2	3	4	5
		Ineffective				Very Effective
Films/slides	NA	1	2	3	4	5
		Ineffective				Very Effective
Case studies	NA	1	2	3	4	5
		Ineffective				Very Effective

6. Briefly describe how you think the course will benefit you in the future:

7. Indicate your overall rating for the elective:

1	2	3	4	5
Very Poor				Excellent

8. How would you improve the content of the elective?

9. How would you improve the format of the elective?

10. Other Comments:

APPENDIX D
Child Abuse and Neglect
Follow-up Questionnaire

**CHILD ABUSE AND NEGLECT ELECTIVE
FOLLOW-UP QUESTIONNAIRE**

Since taking the Child Abuse and Neglect elective, please indicate how your work has been affected:

1. Have you had an opportunity to apply knowledge of laws and regulations related to child abuse and neglect?

Yes ☐ If yes, please provide a brief example of how the elective was helpful.

No ☐ If no, please briefly explain how knowledge or skills learned in the elective would probably be helpful to you.

2. Have you had an opportunity to apply knowledge of diagnosis and treatment of child abuse and neglect?

Yes ☐ If yes, please provide a brief example of how the elective was helpful.

No ☐ If no, please briefly explain how knowledge or skills learned in the elective would probably be helpful to you.

3. Have you had an opportunity to apply knowledge of the illnesses of disabled infants and older children, and the ethics of decision-making in treatment?

Yes ☐ If yes, please provide a brief example of how the elective was helpful.

No ☐ If no, please briefly explain how knowledge and skills learned in the elective would probably be helpful to you.

4. Have you had an opportunity to apply knowledge gained through working with child protective services, law enforcement agencies, or the courts?

Yes ☐ If yes, please provide a brief example of how the elective was helpful.

No ☐ If no, please briefly explain how knowledge or skills learned in the elective would probably be helpful to you.

5. How much has taking the elective increased your ability to recognize and/or diagnose cases of child abuse and neglect?

5
Very Much

4

3
Unsure

2

1
Not at All

6. Have you actually been able to increase your reporting of child abuse and neglect as a result of taking the elective:

Please make any comments that you feel would serve to improve the scope, content, or efficacy of the elective.